

E. J. SMITH.  
Stair-Rods.

No. 138,704.

Patented May 6, 1873.

Fig 1

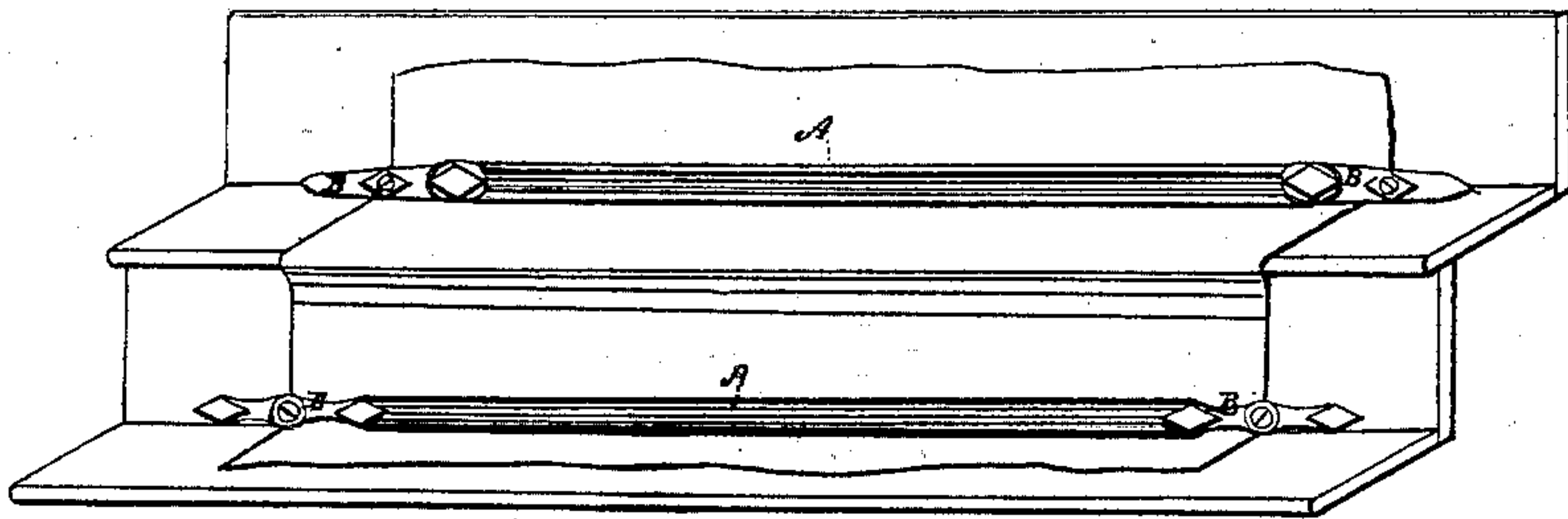


Fig 2

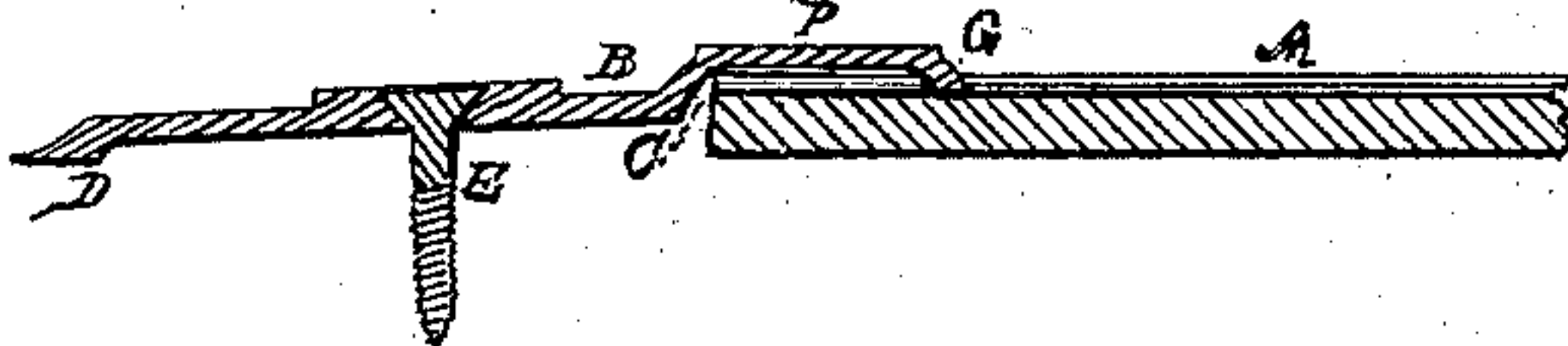
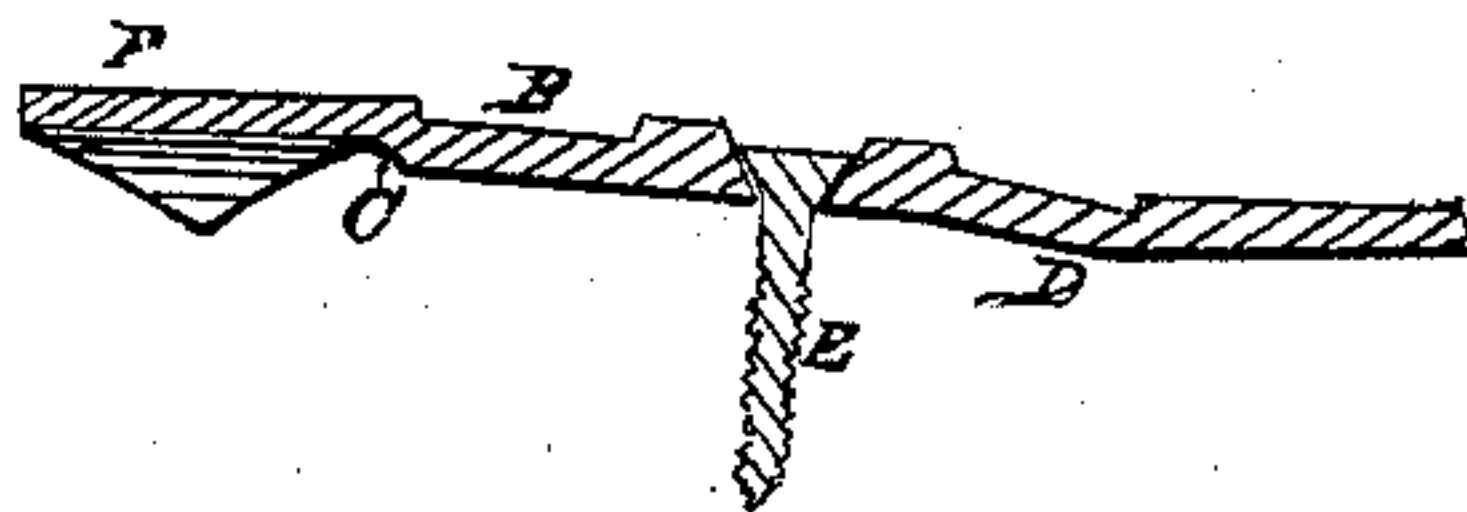


Fig. 3



Witnesses

*Chas. F. Stiles*

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INVENTOR

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# UNITED STATES PATENT OFFICE.

ELDRIDGE J. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN STAIR-RODS.

Specification forming part of Letters Patent No. **138,704**, dated May 6, 1873; application filed January 7, 1873.

*To all whom it may concern:*

Be it known that I, ELDRIDGE J. SMITH, of Washington City, in the District of Columbia, have invented certain Improvements in Stair-Rods, of which the following is a specification:

My invention relates to the securing of stair-rods either in the angle of the stair or to the riser thereof.

The rod is of wood or other suitable material, and is secured in place by metallic caps resting on and covering the ends of the rod. The metallic caps are provided with an arm projecting outwardly, the end of which, provided with a curved projection, rests on the stair. The plate is secured by means of a screw at or near the middle of the plate, so that by turning the screw an equal pressure will be distributed to each end of the plate, thus holding the rod firmly in position. In detaching the rod the screw is reversed when the plate is loosed, so as to enable the sliding of the rod further under the plate so loosed, when the opposite end of the rod being thus released from the plate, it may readily be removed. The rods are prevented from slipping from their position by a shoulder on the outer edge of the cap, against which the ends of the rod come in contact; also by the ends of the rod being beveled at the point where the head or cap comes in contact with the end of the rod corresponding with the angle at which the plate is adjusted.

Figure 1 is a top view of the invention as it is fastened to the stairs. Fig. 2 is a transverse sectional side elevation of the plate fitting in

the angle of the stair. Fig. 3 is also a transverse sectional side elevation of the plate fitting to the riser of the stair.

A A, in Figure 1, are the stair-rods; B B, metal plates to secure the rods in place. The plates are provided with a shoulder, C, as shown in Figs. 2 and 3, which serves to hold the rod when adjusted from sliding laterally. The flange or curved projection D at the outer end of the plate rests in the angle of the stair, so that when the screw E is turned the head or cap F will press upon the end of the rod, thus firmly securing it in place.

The rod can be removed by loosening the screw E which secures the plate, when the rod can be slid under the plate B, pass the shoulder C far enough to release the opposite end from the head or cap, when the rod can be readily removed.

The drawing shows the rod A grooved in the upper or outer surface, and the metallic cap provided with a lip, H, which fits snugly in the groove; or, as in Fig. 3, when the metallic cap is made to cover the end of a rod whose outer surface forms the segment of a circle.

I claim as my invention—

In combination with the rod A, the plates B B, provided with the cap and shoulder C and curved projection D, and secured by the screw E or its equivalent, substantially as and for the purpose hereinbefore set forth.

ELDRIDGE J. SMITH.

Witnesses:

CHAS. B. STEELE,  
E. H. BATES.